



# **STIC Search Report**

## **Biotech-Chem Library**

**STIC Database Tracking Number: 149407**

**TO: Nita M Minnifield**  
**Location: rem/3c01/3c18**  
**Art Unit: 1645**  
**Thursday, March 31, 2005**

**Case Serial Number: 10/643888**

**From: Edward Hart**  
**Location: Biotech-Chem Library**  
**REM-1A55**  
**Phone: 571-272-2512**

**edward.hart@uspto.gov**

### **Search Notes**

Examiner Minnifield,

Here are the results of the search you requested.

Please feel free to contact me if you have any questions.

Edward Hart



From: Chan, Christina  
Sent: Thursday, March 31, 2005 1:00 PM  
To: Minnifield, Nita; STIC-Biotech/ChemLib  
Subject: RE: interference sequence search request

**Please rush. Thaks Chris**

*Chris Chan*

TC 1600 New Hire Training Coordinator and SPE 1644  
(571)-272-0841  
Remsen, 3E89

-----Original Message-----

From: Minnifield, Nita  
Sent: Thursday, March 31, 2005 9:32 AM  
To: Chan, Christina  
Subject: interference sequence search request

Christina, please approve, 2 month amdt.

STIC

10/643888

Please do an interference sequence search on SEQ ID NO: 38, 52 and 64 of the above application.

Please provide a paper copy of the results.

Thanks,  
Minnifield  
71976

\*\*\*\*\*

STAFF USE ONLY

Searcher: \_\_\_\_\_  
Searcher Phone: 2- \_\_\_\_\_  
Date Searcher Picked up: 3/31/05  
Date Completed: 3/31/05  
Searcher Prep/Rev. Time: \_\_\_\_\_  
Online Time: \_\_\_\_\_

\*\*\*\*\*

Type of Search

NA#: 3 AA#: \_\_\_\_\_  
Interference: \_\_\_\_\_ SPDI: \_\_\_\_\_  
S/L: \_\_\_\_\_ Oligomer: \_\_\_\_\_  
Encode/Transl: \_\_\_\_\_  
Structure#: \_\_\_\_\_ Text: \_\_\_\_\_  
Inventor: \_\_\_\_\_ Litigation: \_\_\_\_\_

\*\*\*\*\*

Vendors and cost where applicable

STN: \_\_\_\_\_  
DIALOG: \_\_\_\_\_  
QUESTEL/ORBIT: \_\_\_\_\_  
LEXIS/NEXIS: \_\_\_\_\_  
SEQUENCE SYSTEM: ROT  
WWW/Internet: \_\_\_\_\_  
Other(Specify): \_\_\_\_\_

GenCore Version 5.1.6  
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OM protein - protein search, using SW model

Run on: March 31, 2005, 13:39:24 / Search time 17.333 Seconds  
(without alignments)  
38.760 Million cell updates/sec

Title: US-10-643-888-38

Perfect score: 44

Sequence: 1 YLVPWVATV 9

Scoring table: BLOSUM62  
Gapop 10.0, Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database: Issued Patents AA.\*  
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2: /cgn2\_6/ptodata/1/1aa/5B.COMB.pep.\*  
3: /cgn2\_6/ptodata/1/1aa/6A.COMB.pep.\*  
4: /cgn2\_6/ptodata/1/1aa/6B.COMB.pep.\*  
5: /cgn2\_6/ptodata/1/1aa/PTUS.COMB.pep.\*  
6: /cgn2\_6/ptodata/1/1aa/backfile1.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match Length	DB ID	Description
1	44	100.0	9 4 US-09-692-170C-41	Sequence 41, Appl
2	44	100.0	9 4 US-09-692-325-37	Sequence 37, Appl
3	44	100.0	9 4 US-09-692-325-38	Sequence 38, Appl
4	44	100.0	9 4 US-10-405-231A-41	Sequence 41, Appl
5	44	100.0	9 4 US-10-238-607-41	Sequence 41, Appl
6	44	100.0	9 4 US-09-984-365-41	Sequence 41, Appl
7	44	100.0	22 4 US-09-692-170C-20	Sequence 20, Appl
8	44	100.0	22 4 US-09-692-170C-21	Sequence 21, Appl
9	44	100.0	22 4 US-10-405-231A-20	Sequence 21, Appl
10	44	100.0	22 4 US-10-238-607-20	Sequence 20, Appl
11	44	100.0	22 4 US-10-238-607-21	Sequence 21, Appl
12	44	100.0	22 4 US-09-984-365-20	Sequence 20, Appl
13	44	100.0	22 4 US-09-984-365-21	Sequence 21, Appl
14	44	100.0	22 4 US-09-692-325-51	Sequence 51, Appl
15	44	93.2	9 4 US-09-692-325-57	Sequence 57, Appl
16	44	93.2	9 4 US-09-692-325-58	Sequence 58, Appl
17	40	90.9	9 4 US-09-692-170C-40	Sequence 40, Appl
18	40	90.9	9 4 US-09-692-325-59	Sequence 59, Appl
19	40	90.9	9 4 US-09-692-325-60	Sequence 60, Appl
20	40	90.9	9 4 US-09-692-325-61	Sequence 61, Appl
21	40	90.9	9 4 US-09-692-325-62	Sequence 62, Appl
22	40	90.9	9 4 US-09-692-325-63	Sequence 63, Appl
23	40	90.9	9 4 US-09-692-325-64	Sequence 64, Appl
24	40	90.9	9 4 US-10-405-231A-40	Sequence 40, Appl
25	40	90.9	9 4 US-10-238-607-40	Sequence 40, Appl
26	40	90.9	9 4 US-09-984-365-40	Sequence 40, Appl
27	40	90.9	22 4 US-09-692-170C-23	Sequence 23, Appl

28	40	90.9	22 4 US-10-405-231A-23	Sequence 23, Appl
29	40	90.9	22 4 US-10-238-607-23	Sequence 23, Appl
30	40	90.9	22 4 US-09-984-365-23	Sequence 23, Appl
31	37	84.1	9 3 US-09-075-257A-1	Sequence 1, Appl
32	37	84.1	9 3 US-09-534-639-1	Sequence 1, Appl
33	37	84.1	9 4 US-09-692-170C-1	Sequence 1, Appl
34	37	84.1	9 4 US-09-692-170C-39	Sequence 39, Appl
35	37	84.1	9 4 US-09-812-079A-15	Sequence 15, Appl
36	37	84.1	9 4 US-09-319-264-8	Sequence 8, Appl
37	37	84.1	9 4 US-09-692-325-1	Sequence 1, Appl
38	37	84.1	9 4 US-09-692-325-4	Sequence 4, Appl
39	37	84.1	9 4 US-09-692-325-12	Sequence 12, Appl
40	37	84.1	9 4 US-09-692-325-18	Sequence 18, Appl
41	37	84.1	9 4 US-09-692-325-73	Sequence 73, Appl
42	37	84.1	9 4 US-09-692-325-74	Sequence 74, Appl
43	37	84.1	9 4 US-09-692-325-75	Sequence 75, Appl
44	37	84.1	9 4 US-09-692-325-76	Sequence 76, Appl
45	37	84.1	9 4 US-09-692-325-77	Sequence 77, Appl

## ALIGNMENTS

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RESULT 1
US-09-692-170C-41
Sequence 41, Application US/09692170C
Patent No. 6562345
GENERAL INFORMATION:
APPLICANT: Diamond, Don J.
TITLE OF INVENTION: IMMUNO-REACTIVE PEPTIDE CTL EPITOPES OF HUMAN CYTOMEGALOVIRUS
FILE REFERENCE: 1954-346
CURRENT APPLICATION NUMBER: US/09/692,170C
CURRENT FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: US 09/534,639
PRIOR FILING DATE: 2000-03-27
PRIOR APPLICATION NUMBER: US 09/075,257
PRIOR FILING DATE: 1998-05-11
PRIOR APPLICATION NUMBER: US 09/021,298
PRIOR FILING DATE: 1998-02-10
PRIOR APPLICATION NUMBER: US 08/950,064
PRIOR FILING DATE: 1997-10-14
PRIOR APPLICATION NUMBER: US 08/747,488
PRIOR FILING DATE: 1996-11-12
NUMBER OF SEQ ID NOS: 44
SOFTWARE: PatentIn version 3.1
SEQ ID NO 41
LENGTH: 9
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Amdated variant human cytomegalovirus peptide epitope
NAME/KEY: MOD_RES
LOCATION: (9):(9)
OTHER INFORMATION: AMIDATION
US-09-692-170C-41

Query Match          100.0%; Score 44; DB 4; Length 9;
Best Local Similarity 100.0%; Pred. No. 4.1e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 YLVPWVATV 9
Db      1 YLVPWVATV 9

RESULT 2
US-09-692-325-37
Sequence 37, Application US/09692325
Patent No. 6632435
GENERAL INFORMATION:
APPLICANT: Diamond, Don
TITLE OF INVENTION: CTL Epitope Analogs

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OM protein - protein search, using sw model

Run on: March 31, 2005, 13:39:24 ; Search time 163.667 Seconds  
(without alignments)  
18.234 Million cell updates/sec

Title: US-10-643-888-38  
Sequence: 44 YLVPVAVTV 9

Scoring table: BLOSUM62  
Gapop 10.0, Gapext 0.5

Searched: 1413372 seqs, 331592847 residues  
Total number of hits satisfying chosen parameters: 1413372

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

# Database :

Published Applications\_AA:\*

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- 6: /cgn2\_6/ptodata/1/pubpaa/PCTUS\_PUBCOMB.pep:\*
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- 13: /cgn2\_6/ptodata/1/pubpaa/US10\_PUBCOMB.pep:\*
- 14: /cgn2\_6/ptodata/1/pubpaa/US10\_PUBCOMB.pep:\*
- 15: /cgn2\_6/ptodata/1/pubpaa/US10C\_PUBCOMB.pep:\*
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- 19: /cgn2\_6/ptodata/1/pubpaa/US60\_NEW\_PUB.pep:\*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	44	100.0	9	10	US-09-984-365-41
2	44	100.0	9	14	US-10-238-607-41
3	44	100.0	9	14	US-10-405-231-41
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6	44	100.0	9	16	US-10-637-055-41
7	44	100.0	9	17	US-10-736-640-41
8	44	100.0	22	10	US-09-984-365-20
9	44	100.0	22	10	US-09-984-365-21
10	44	100.0	22	14	US-10-238-607-20
11	44	100.0	22	14	US-10-238-607-21
12	44	100.0	22	14	US-10-405-231-20
13	44	100.0	22	14	US-10-405-231-21

14	44	100.0	22	16	US-10-697-055-20	Sequence 20, Appl
15	44	100.0	22	16	US-10-697-055-21	Sequence 21, Appl
16	44	100.0	22	17	US-10-736-640-20	Sequence 22, Appl
17	44	100.0	22	17	US-10-736-640-21	Sequence 23, Appl
18	41	93.2	9	15	US-10-643-888-57	Sequence 24, Appl
19	41	93.2	9	15	US-10-643-888-58	Sequence 25, Appl
20	40	90.9	9	10	US-09-984-365-40	Sequence 26, Appl
21	40	90.9	9	14	US-10-238-607-40	Sequence 27, Appl
22	40	90.9	9	14	US-10-405-231-40	Sequence 28, Appl
23	40	90.9	9	15	US-10-643-888-59	Sequence 29, Appl
24	40	90.9	9	15	US-10-643-888-60	Sequence 30, Appl
25	40	90.9	9	15	US-10-643-888-61	Sequence 31, Appl
26	40	90.9	9	15	US-10-643-888-62	Sequence 32, Appl
27	40	90.9	9	15	US-10-643-888-63	Sequence 33, Appl
28	40	90.9	9	15	US-10-643-888-64	Sequence 34, Appl
29	40	90.9	9	16	US-10-697-055-40	Sequence 35, Appl
30	40	90.9	9	17	US-10-736-640-40	Sequence 36, Appl
31	40	90.9	22	10	US-09-984-365-23	Sequence 37, Appl
32	40	90.9	22	14	US-10-238-607-23	Sequence 38, Appl
33	40	90.9	22	14	US-10-405-231-23	Sequence 39, Appl
34	40	90.9	22	16	US-10-697-055-23	Sequence 40, Appl
35	40	90.9	22	17	US-10-736-640-23	Sequence 41, Appl
36	37	84.1	9	9	US-09-832-336-10	Sequence 42, Appl
37	37	84.1	9	9	US-09-815-330A-6	Sequence 43, Appl
38	37	84.1	9	9	US-09-954-392-1	Sequence 44, Appl
39	37	84.1	9	9	US-09-319-264-8	Sequence 45, Appl
40	37	84.1	9	10	US-09-984-365-1	Sequence 46, Appl
41	37	84.1	9	10	US-09-984-365-39	Sequence 47, Appl
42	37	84.1	9	14	US-10-238-607-1	Sequence 48, Appl
43	37	84.1	9	14	US-10-238-607-39	Sequence 49, Appl
44	37	84.1	9	14	US-10-409-063-6	Sequence 50, Appl
45	37	84.1	9	14		Sequence 51, Appl

## ALIGNMENTS

RESULT 1  
US-09-984-365-41  
Sequence 41, Application US/09984365  
Publication No. US20030224980A1  
GENERAL INFORMATION:  
APPLICANT: Diamond, Don J  
TITLE OF INVENTION: IMMUNO-REACTIVE PEPTIDE CTL EPTOPES OF HUMAN CYTOMEGALOVIRUS  
FILE REFERENCE: 1954-384  
CURRENT APPLICATION NUMBER: US/09/984,365  
PRIOR FILING DATE: 2002-03-13  
PRIOR APPLICATION NUMBER: US 09/692170  
PRIOR FILING DATE: 2000-10-20  
PRIOR APPLICATION NUMBER: US 09/534639  
PRIOR FILING DATE: 2000-03-27  
PRIOR APPLICATION NUMBER: US 09/075257  
PRIOR FILING DATE: 1998-05-11  
PRIOR APPLICATION NUMBER: US 09/021298  
PRIOR FILING DATE: 1998-02-10  
PRIOR APPLICATION NUMBER: US 08/950064  
PRIOR FILING DATE: 1997-10-14  
PRIOR APPLICATION NUMBER: US 08/747488  
PRIOR FILING DATE: 1996-11-12  
NUMBER OF SEQ ID NOS: 44  
SOFTWARE: PatentIn version 3.1  
SEQ ID NO 41  
LENGTH: 9  
TYPE: PRT  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: HCV pp65 sequence variant  
NAME/KEY: MOD RES  
LOCATION: (9).(9)  
OTHER INFORMATION: AMIDATION  
US-09-984-365-41

GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: March 31, 2005, 13:39:24 ; Search time 17.333 Seconds  
(without alignments)  
38.760 Million cell updates/sec

Title: US-10-643-888-52

Perfect score: 42

Sequence: 1 NLLPMVASV 9

Scoring table:

BLOSUM62  
Gapop 10.0, Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%  
Listing first 45 summaries

-Database :

1: Issued Patents AA.\*  
2: /cgn2\_6/ptodata/1/1aa/5A.COMB.pep.\*  
3: /cgn2\_6/ptodata/1/1aa/5B.COMB.pep.\*  
4: /cgn2\_6/ptodata/1/1aa/6A.COMB.pep.\*  
5: /cgn2\_6/ptodata/1/1aa/6B.COMB.pep.\*  
6: /cgn2\_6/ptodata/1/1aa/backfile1.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	42	100.0	9	4	US-09-692-325-51
2	42	100.0	9	4	US-09-692-325-52
3	42	100.0	22	4	US-09-692-170C-24
4	42	100.0	22	4	US-10-405-231A-24
5	42	100.0	22	4	US-10-238-607-24
6	42	100.0	22	4	US-09-984-365-24
7	39	92.9	9	4	US-09-692-325-39
8	39	92.9	9	4	US-09-692-325-40
9	39	92.9	9	4	US-09-692-325-45
10	39	92.9	9	4	US-09-692-325-46
11	38	90.5	9	4	US-09-692-325-65
12	38	90.5	9	4	US-09-692-325-66
13	38	90.5	9	4	US-09-692-325-67
14	38	90.5	9	4	US-09-692-325-68
15	36	85.7	9	3	US-09-075-257A-1
16	36	85.7	9	3	US-09-534-639-1
17	36	85.7	9	4	US-09-692-170C-1
18	36	85.7	9	4	US-09-692-170C-39
19	36	85.7	9	4	US-09-813-079A-15
20	36	85.7	9	4	US-09-318-264-8
21	36	85.7	9	4	US-09-692-325-1
22	36	85.7	9	4	US-09-692-325-10
23	36	85.7	9	4	US-09-692-325-18
24	36	85.7	9	4	US-09-692-325-19
25	36	85.7	9	4	US-09-692-325-77
26	36	85.7	9	4	US-09-692-325-78
27	36	85.7	9	4	US-09-954-392-1

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28	36	85.7	9	4	US-10-405-231A-1	Sequence 1, Appl
29	36	85.7	9	4	US-10-238-607-1	Sequence 39, Appl
30	36	85.7	9	4	US-10-238-607-1	Sequence 1, Appl
31	36	85.7	9	4	US-10-238-607-39	Sequence 39, Appl
32	36	85.7	9	4	US-09-984-365-1	Sequence 39, Appl
33	36	85.7	9	4	US-09-984-365-39	Sequence 39, Appl
34	36	85.7	9	4	US-09-815-130A-6	Sequence 6, Appl
35	36	85.7	12	4	US-09-692-170C-30	Sequence 30, Appl
36	36	85.7	12	4	US-09-692-170C-31	Sequence 31, Appl
37	36	85.7	12	4	US-09-692-170C-32	Sequence 32, Appl
38	36	85.7	12	4	US-10-405-231A-30	Sequence 30, Appl
39	36	85.7	12	4	US-10-405-231A-31	Sequence 31, Appl
40	36	85.7	12	4	US-10-405-231A-32	Sequence 32, Appl
41	36	85.7	12	4	US-10-238-607-30	Sequence 30, Appl
42	36	85.7	12	4	US-10-238-607-31	Sequence 31, Appl
43	36	85.7	12	4	US-10-238-607-32	Sequence 32, Appl
44	36	85.7	12	4	US-09-984-365-30	Sequence 30, Appl
45	36	85.7	12	4	US-09-984-365-31	Sequence 31, Appl

RESULT 1  
US-09-692-325-51

Sequence 51, Application US/09692325

Parent No. 6632435

GENERAL INFORMATION:

APPLICANT: Diamond, Don

TITLE OF INVENTION: CTL Epitope Analogs

FILE REFERENCE: 1954-314

CURRENT APPLICATION NUMBER: US/09/692,325

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: US 60/160633

PRIOR FILING DATE: 1999-10-20

PRIOR APPLICATION NUMBER: US 60/187871

PRIOR FILING DATE: 2000-03-08

NUMBER OF SEQ ID NOS: 78

SOFTWARE: PatentIn version 3.0

SEQ ID NO 51

LENGTH: 9

TYPE: PRT

ORGANISM: Artificial Sequence

FEATURE:

OTHER INFORMATION: HCMV vaccine peptide

NAME/KEY: MOD RES

LOCATION: (9) .. (9)

OTHER INFORMATION: AMIDATION

US-09-692-325-51

Query Match

Best Local Similarity 100.0%; Score 42; DB 4; Length 9;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 NLLPMVASV 9

RESULT 2

US-09-692-325-52

Sequence 52, Application US/09692325

Parent No. 6632435

GENERAL INFORMATION:

APPLICANT: Diamond, Don

TITLE OF INVENTION: CTL Epitope Analogs

FILE REFERENCE: 1954-314

CURRENT APPLICATION NUMBER: US/09/692,325

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: US 60/160633

PRIOR FILING DATE: 1999-10-20

PRIOR APPLICATION NUMBER: US 60/187871

PRIOR FILING DATE: 2000-03-08

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OM protein - protein search, using SW model

Run on: March 31, 2005, 13:39:24 ; Search time 163.667 Seconds

(without alignments)  
18,234 Million cell updates/sec

Title: US-10-643-888-52

Perfect score: 42

Sequence: 1 NLLPMVASV 9

Scoring table: BLOSUM62

Gapop 10.0, Gapext 0.5

Searched: 1413372 seqs, 331592847 residues

Total number of hits satisfying chosen parameters: 1413372

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database:

Published Applications AA:\*

- 1: /cgn2\_6/ptodata/1/pubppa/US07\_PUBCOMB.pep:\*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

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4	42	100.0	22	14	US-10-238-607-24
5	42	100.0	22	14	US-10-405-231-24
6	42	100.0	22	16	US-10-697-053-24
7	42	100.0	22	17	US-10-736-640-24
8	39	92.9	9	15	US-10-643-888-39
9	39	92.9	9	15	US-10-643-888-40
10	39	92.9	9	15	US-10-643-888-45
11	39	92.9	9	15	US-10-643-888-46
12	38	90.5	9	15	US-10-643-888-65
13	38	90.5	9	15	US-10-643-888-66

14	38	90.5	9	15	US-10-643-888-67	Sequence 67, Appl
15	38	90.5	9	15	US-10-643-888-68	Sequence 68, Appl
16	36	85.7	9	9	US-09-812-079A-15	Sequence 15, Appl
17	36	85.7	9	9	US-09-812-336-10	Sequence 10, Appl
18	36	85.7	9	9	US-09-815-330A-6	Sequence 6, Appl
19	36	85.7	9	9	US-09-954-392-1	Sequence 1, Appl
20	36	85.7	9	9	US-09-319-264-8	Sequence 8, Appl
21	36	85.7	9	10	US-09-984-365-1	Sequence 1, Appl
22	36	85.7	9	10	US-09-984-365-39	Sequence 39, Appl
23	36	85.7	9	14	US-10-238-607-1	Sequence 39, Appl
24	36	85.7	9	14	US-10-238-607-39	Sequence 39, Appl
25	36	85.7	9	14	US-10-409-063-6	Sequence 6, Appl
26	36	85.7	9	14	US-10-405-231-1	Sequence 1, Appl
27	36	85.7	9	14	US-10-405-231-39	Sequence 39, Appl
28	36	85.7	9	14	US-10-434-982-15	Sequence 15, Appl
29	36	85.7	9	15	US-10-623-429-13	Sequence 13, Appl
30	36	85.7	9	15	US-10-643-888-1	Sequence 1, Appl
31	36	85.7	9	15	US-10-643-888-10	Sequence 10, Appl
32	36	85.7	9	15	US-10-643-888-18	Sequence 18, Appl
33	36	85.7	9	15	US-10-643-888-19	Sequence 19, Appl
34	36	85.7	9	15	US-10-643-888-77	Sequence 77, Appl
35	36	85.7	9	15	US-10-643-888-78	Sequence 78, Appl
36	36	85.7	9	16	US-10-603-094-1	Sequence 1, Appl
37	36	85.7	9	16	US-10-618-267-4	Sequence 4, Appl
38	36	85.7	9	16	US-10-415-841A-17	Sequence 17, Appl
39	36	85.7	9	16	US-10-777-053-198	Sequence 198, Appl
40	36	85.7	9	16	US-10-697-053-1	Sequence 1, Appl
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45	36	85.7	9	17	US-10-736-640-39	Sequence 39, Appl

#### ALIGNMENTS

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Sequence 51, Application US/10643888  
Publication No. US20040086520A1  
GENERAL INFORMATION:  
APPLICANT: Diamond, Don  
TITLE OF INVENTION: CTL Epitope Analogs  
FILE REFERENCE: 1954-314  
CURRENT APPLICATION NUMBER: US/10/643,888  
CURRENT FILING DATE: 2003-08-20  
PRIOR APPLICATION NUMBER: US/09/692,325  
PRIOR FILING DATE: 2000-10-20  
PRIOR APPLICATION NUMBER: US 60/160633  
PRIOR FILING DATE: 1999-10-20  
PRIOR APPLICATION NUMBER: US 60/187871  
PRIOR FILING DATE: 2000-03-08  
NUMBER OF SEQ ID NOS: 78  
SOFTWARE: PatentIn version 3.0  
SEQ ID NO 51  
LENGTH: 9  
TYPE: PRT  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: HCMV vaccine peptide  
NAME/KEY: MOD RES  
LOCATION: (9)..(9)  
OTHER INFORMATION: AMIDATION  
US-10-643-888-51  
Query Match 100.0%; Score 42; DB 15; Length 9;  
Best Local Similarity 100.0%; Pred. NO. 1.3e+06;  
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
1 NLLPMVASV 9  
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OM protein - protein search, using SW model

Run on: March 31, 2005, 13:39:24 ; Search time 17.333 Seconds  
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Title: US-10-643-888-64

Perfect score: 43

Sequence: 1 YLVPWVASV 9

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

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Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%

Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

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6	43	100.0	9	4	US-09-984-365-40
7	43	100.0	22	4	US-09-692-170C-23
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10	43	100.0	22	4	US-09-984-365-23
11	43	93.0	9	4	US-09-692-170C-41
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14	43	93.0	9	4	US-09-692-325-39
15	43	93.0	9	4	US-09-692-325-40
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25	43	93.0	22	4	US-09-984-365-20
26	43	93.0	22	4	US-09-984-365-21
27	39	90.7	9	4	US-09-692-325-69

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32	37	86.0	9	4	US-09-692-325-58	Sequence 58, App1
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35	36	83.7	9	4	US-09-692-325-35	Sequence 35, App1
36	36	83.7	9	4	US-09-692-325-36	Sequence 36, App1
37	36	83.7	9	4	US-09-692-325-45	Sequence 45, App1
38	36	83.7	9	4	US-09-692-325-46	Sequence 46, App1
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#### ALIGNMENTS

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; Patent No. 6562345
; GENERAL INFORMATION:
; APPLICANT: Diamond, Don J.
; TITLE OF INVENTION: IMMUNO-REACTIVE PEPTIDE CTL EPTOPES OF HUMAN CYTOMEGALOVIRUS
; FILE REFERENCE: 1954-346
; CURRENT FILING DATE: 2000-10-20
; PRIOR FILING DATE: 2000-03-27
; PRIOR APPLICATION NUMBER: US 09/534,639
; PRIOR FILING DATE: 1998-05-11
; PRIOR APPLICATION NUMBER: US 09/021,298
; PRIOR FILING DATE: 1998-02-10
; PRIOR APPLICATION NUMBER: US 08/950,064
; PRIOR FILING DATE: 1997-10-14
; PRIOR APPLICATION NUMBER: US 08/747,488
; PRIOR FILING DATE: 1996-11-12
; NUMBER OF SEQ ID NOS: 44
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 40
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Amdated variant human cytomegalovirus peptide epitope
; NAME/KEY: MOD_RES
; LOCATION: (9)..(9)
; OTHER INFORMATION: AMIDATION
US-09-692-170C-40

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Best Local Similarity 100.0%; Pred. No. 41e+05;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db      1 YLVPWVASV 9

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; Sequence 63, Application US/09692325
; Patent No. 6632435
; GENERAL INFORMATION:
; APPLICANT: Diamond, Don
; TITLE OF INVENTION: CTL Epitope Analogs
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GenCore Version 5.1.6  
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Run on: March 31, 2005, 13:39:24 / Search time 163.667 Seconds  
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Title: US-10-643-888-64

Perfect score: 43

Sequence: 1 YLPMVAVSV 9

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Total number of hits satisfying chosen parameters: 1413372

Minimum DB seq length: 0

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Post-processing: Minimum Match 0%  
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Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

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5	43	100.0	9	15	US-10-643-888-64
6	43	100.0	9	15	US-10-697-055-40
7	43	100.0	9	17	US-10-736-640-40
8	43	100.0	22	10	US-09-984-365-23
9	43	100.0	22	14	US-10-238-607-23
10	43	100.0	22	14	US-10-405-231-23
11	43	100.0	22	15	US-10-697-055-23
12	43	100.0	22	16	US-10-736-640-23
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15	40	93.0	9	14	US-10-405-231-41	Sequence 41, Appl
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17	40	93.0	9	15	US-10-643-888-38	Sequence 38, Appl
18	40	93.0	9	15	US-10-643-888-77	Sequence 77, Appl
19	40	93.0	9	15	US-10-643-888-78	Sequence 78, Appl
20	40	93.0	9	16	US-10-697-055-41	Sequence 41, Appl
21	40	93.0	9	17	US-10-736-640-41	Sequence 41, Appl
22	40	93.0	22	10	US-09-984-365-20	Sequence 20, Appl
23	40	93.0	22	14	US-10-238-607-20	Sequence 20, Appl
24	40	93.0	22	14	US-10-405-231-20	Sequence 20, Appl
25	40	93.0	22	14	US-10-697-055-21	Sequence 21, Appl
26	40	93.0	22	16	US-10-736-640-21	Sequence 21, Appl
27	40	93.0	22	16	US-10-697-055-21	Sequence 21, Appl
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30	40	93.0	22	17	US-10-736-640-22	Sequence 22, Appl
31	40	93.0	22	17	US-10-736-640-22	Sequence 22, Appl
32	39	90.7	9	15	US-10-643-888-69	Sequence 69, Appl
33	39	90.7	9	15	US-10-643-888-70	Sequence 70, Appl
34	39	90.7	9	15	US-10-643-888-71	Sequence 71, Appl
35	39	90.7	9	15	US-10-643-888-72	Sequence 72, Appl
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37	37	86.0	9	15	US-10-643-888-58	Sequence 58, Appl
38	36	83.7	9	15	US-10-643-888-2	Sequence 2, Appl
39	36	83.7	9	15	US-10-643-888-3	Sequence 3, Appl
40	36	83.7	9	15	US-10-643-888-35	Sequence 35, Appl
41	36	83.7	9	15	US-10-643-888-36	Sequence 36, Appl
42	36	83.7	9	15	US-10-643-888-45	Sequence 45, Appl
43	36	83.7	9	15	US-10-643-888-46	Sequence 46, Appl
44	36	83.7	9	15	US-10-643-888-59	Sequence 59, Appl
45	36	83.7	9	15	US-10-643-888-60	Sequence 60, Appl

## ALIGNMENTS

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Sequence 40, Application US/09984365  
Publication No. US20030224980A1  
GENERAL INFORMATION:  
APPLICANT: Diamond, Don J  
TITLE OF INVENTION: IMMUNO-REACTIVE PEPTIDE CTL EPITOPES OF HUMAN CYTOMEGALOVIRUS  
FILE REFERENCE: 1994-384  
CURRENT APPLICATION NUMBER: US/09/984,365  
CURRENT FILING DATE: 2002-03-13  
PRIOR APPLICATION NUMBER: US 09/692170  
PRIOR FILING DATE: 2000-10-20  
PRIOR APPLICATION NUMBER: US 09/534639  
PRIOR FILING DATE: 2000-03-27  
PRIOR APPLICATION NUMBER: US 09/075257  
PRIOR FILING DATE: 1998-05-11  
PRIOR APPLICATION NUMBER: US 09/021298  
PRIOR FILING DATE: 1998-02-10  
PRIOR APPLICATION NUMBER: US 08/950064  
PRIOR FILING DATE: 1997-10-14  
PRIOR APPLICATION NUMBER: US 08/747488  
PRIOR FILING DATE: 1996-11-12  
NUMBER OF SEQ ID NOS: 44  
SOFTWARE: PatentIn version 3.1  
SEQ ID NO 40  
LENGTH: 9  
TYPE: PRT  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: HCMV pp65 sequence variant  
NAME/KEY: MOD RES  
LOCATION: (9) (9)  
OTHER INFORMATION: AMIDATION  
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